

An Army of One...Portal

With a secure enterprise portal, the U.S. Army transforms itself for the 21st century By Dave Clarke Mora

It was Napoleon, a general whose empire at its apex stretched across nearly the whole of western Europe, who declared, "An army marches on its stomach."

True enough, armies sustain themselves with nourishment. But to succeed, to really triumph, armies need something far more critical: intelligence. And, the thinking goes, the more that intelligence permeates every layer of an army's operations and strategies—everything from the way it designs equipment to the way it deploys troops—the better the chances for success.

Virtual knowledge, real results

"We call it decision dominance," explains Gary Winkler, "the ability to get inside an adversary's decision cycle on the battlefield."

Winkler would know. As chief knowledge officer for the state-of-art enterprise portal known as Army Knowledge Online (AKO), Winkler oversees the electronic entryway for the 1.8 million constituents who comprise the United States Army's community-at-large—everyone from active duty soldiers and their families, to Army Reserves, Army National Guard,



Gary Winkler, Chief Knowledge Officer, United States Army, Army Knowledge Online

retirees, other branches of the military and the federal government, and even contractors sponsored by the Army.

With nearly a million account holders signing on per month to download more than 30 million files and exchange more than 17 million instant messages, the portal supports everything from soldier battlefield operations to email for soldiers and their families, and information about, and access to, their personnel records,

Army of One...

Continued from Cover

benefits, and training opportunities.

AKO has three components: the public-facing homepage for the U.S. Army (www.us.army.mil); the Non-secure Internet Router Network (NIPRNet), which contains unclassified information; and the Secure Internet Protocol Router Network (SIPRNet), which holds information classified at Secret or higher, such as troop deployments or a company's specific experiences on patrol, which can be passed along to the next unit patrolling that area. AKO is part of a larger, strategic initiative conceived in 1997, known as Army Knowledge Management (AKM).

Formalized by order of the Secretary of the Army and the Army's Chief of Staff in August, 2001, AKM represented a shift in the way the Army manages, and provides access to, all the knowledge it owns. The overall goal was to build an army that was relevant and ready, now and in the future. By changing the way it functioned organically, by transforming itself into a net-centric, knowledge-based enterprise, the Army reasoned, not only would its ability to transact business internally and externally improve, but more important, its decision dominance capabilities in battle would also be enhanced.

To accomplish that, the Army pursued four key, interrelated strategies: To provide relevant, ready, land-based power; to produce well-trained, well-equipped soldiers, led by adaptive leaders; to offer a quality of life and well-being for its personnel that matched the quality of their service; and, an infrastructure enabling the force to fulfill its strategic roles and missions.

What began as a small, funded-on-the-fly project intended as a high-performance computing center, is today a US\$50 million-plus IT knowledge- and information-sharing tool affecting every aspect of how the Army operates, from the most forward frontlines to the furthest back offices.

The power of change

To affect the shift, or what it calls the 'transformation,' the Army sought reform in five key areas. "The first was governance," Winkler explains, "laying out the policies and resources to make these cultural changes to the institutional, or business, side of the Army, and to the operational side as well. By using these world-class, secured tools, we improved the Army's agility and enhanced all its capabilities."

The second goal, Winkler says, was to institute best practices, all of the e-government transformations that were part of the President's agenda, plus the Army's own subset of that, the e-Army transformation.

Next, came transforming the 'infrastructure,' or what the Army calls the LandWarNet.

LandWarNet is the Army's portion of the Global Information Grid. "It's here that we worked on building out our continuity of operations capabilities using defense-in-depth strategies that include applications such as VERITAS Volume Replicator, which helps us synchronize the data between our primary and backup sites," Winkler says.

The fourth area, Winkler explains, was Army Knowledge Online—the development of "a single lens, a universal portal, through which all Army business is conducted."

The last piece of it, the fifth area, was the development of the Army's human capital.

"To do that," says Winkler, "we reach across the entire Army. We provide e-learning and computer-based training to enhance our IT capabilities and knowledge." Currently, AKO offers more than 1,600 free, technical courses—everything from Microsoft- or Cisco-certifications to advanced degrees fully accredited the same as private sector higher education institutions—and more than 500 business management courses, all of which are automatically posted to a soldier's personnel files on completion of the coursework.

An electronic enemy is an enemy nonetheless

"The best way to describe our environment is heterogeneous," Winkler says. "What we've seen when we visited corporate sites in the past year or two is that heterogeneous environments are the wave of the future. So we want to be brand agnostic as we evolve AKO. We, as the Army, and for the taxpayer's sake, don't want to be wedded to any one particular technical platform, solution, or company."

When it comes to spam, Winkler acknowledges the environment, heterogeneous or not, is subject to the same foibles as any other large, commercial enterprise. "We're like everybody else."

AKO handles about three million messages per day, and 15 percent to 20 percent of that traffic is spam. To manage that volume of unsolicited messages, the Army implemented Symantec Brightmail software. "Since we've put in Brightmail, the amount of spam reaching our users has been significantly reduced," says Winkler. "That improves performance across the board, from the IT infrastructure itself to the reduced amount of time users spend managing spam."

Army Knowledge Online

By the Numbers

500 business e-learning courses

1,600 technical e-learning courses

500,000 visitors daily

1,800,000 users

3,000,000 messages daily

30,000,000 downloads monthly

US\$50,000,000+ operating budget

Reduce complexity, increase productivity

Beginning in October 2005, the Army is institutionalizing a set of portfolio management policies across its four business units, or what it calls mission areas. "We're digging several layers down into the organization and identifying the key people in charge at each level," Winkler relates. "At first annually, and then semiannually, those individuals are responsible for reviewing all their requirements and capabilities against what they've got in place to meet their needs. Then, they've got to identify any redundancies, duplicate or stovepipe IT investments they have, as well as any gaps or capabilities they need."

By consolidating everything from servers to suppliers, the Army ensures it makes the most of its resources. "By managing and maximizing our infrastructure and IT capabilities, we make the most of the resources the taxpayers provide us," Winkler says. "We're doing server consolidations and establishing regional processing centers. For the AKO portal, we're even consolidating our industry partners, cutting down to one master partner (known as the "Prime" contractor) who oversees a team of industry partners (subcontractors) for us. We believe that with this consolidated industry team in place, we'll gain cost- and management-efficiencies, increase productivity, and be able to more quickly and easily adapt to new and emerging technologies. That gives us the ability to provide continuous improvement on AKO, and in general, provide better system performance, more system flexibility, and additional capability for our users."

For its part, the Army is reviewing its taxonomies, content management strategies, and is looking at workflow tools.

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"Once we've adequately assessed our requirements, policies and practices, then we hand the AKO requirements off to our industry partners and ask them to implement them for us as efficiently and effectively as possible," Winkler explains.

Mission accomplished

AKO is itself a tool that helps the Army's information technology unit align better with the rest of its mission areas. Some 200 single sign-on applications are already situated inside AKO and more are on the way. "We're bringing more of our Web sites into

AKO, sites that relate to Army business and really belong where only authorized Army personnel can access them," Winkler says. "That helps us align better with our mission areas."

The alignment AKO enables also facilitates cost-avoidance and improves productivity. And that, of course, further improves decision dominance.

The success of AKO has prompted the U.S. Defense Department to consider creating an even broader portal, perhaps called Defense Online. "We're excited about potentially being the launch point for Defense Online, but at the same time we're a little nervous," Winkler explains. "Just meeting the Army's requirements is challenging enough. It seems like we can

never do enough, or do it fast enough, to meet all our needs. To think about taking in another five million users, well, that would certainly create some challenges for us and our partners."

Coming to an understanding

Going forward, Winkler and the Army want to improve AKO's performance to make it even more responsive around the globe. "We want to build sites overseas where we can preposition our relatively static information and then send only the dynamic content back and forth. We think redistributing the load that way will improve performance quite a bit because the data will be available locally.

"We're really good at collecting data," continues Winkler. "We're pretty good at turning data into information. But we're not quite as good at turning that information into knowledge and that knowledge into understanding. To get to that area of understanding requires contextual knowledge and culturally based knowledge. It's much more difficult to get your arms around than say, a tank. We want to get to an understanding level where our users can make really quick and informed decisions, and that will give us decision dominance both on the institutional, or business, side of the Army, and the operational side of the Army in the field, too."

Now, if only Bonaparte had known that at Waterloo, things might have turned out differently for us all. ■

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